

OREGON TUALATIN VALLEY AMATEUR RADIO CLUB



An ARRL Special Service Club

August 1990

Next Meeting August 8, 1990

SEAPAC 1990 Wrap UP

By Ken Hart, N7JAS and Jim Schaeffer, KB7ADH

With the successful conclusion of SEAPAC 1990 we would like to once again thank the many, many people that worked so hard to make it look easy. We held a SEAPAC Appreciation Picnic on July 30 and spent an afternoon with food and friends. After we held drawings and winners included: John, NB7W; Brad, N7NVC; Tom, WA3RMX; Bud, KC7PS; and the big winner of an ICOM 2SAT Martha, KA7CRO.

The SEAPAC numbers show that we increased this year from last with 2420 registrations. We were able to again show a profit which will allow us to support special projects like Scholarships and HAM of the Year.

The early planning for SEAPAC 1991 begins on August 30, 1990 at 07:00 P.M. in the Cedar Hills Baptist Church (just North of Walker Rd. and West of Hwy 217). Anyone that would like to be included early and select a committee is welcome to come and get involved. If you have suggestions, to make next year even better, this is a good forum to voice your ideas.

We've attempted to put together a list of those that are SEAPAC 1990.... we apologize in advance if we have left anyone off. Jim and I offer each of you our heartfelt thanks for your support.

DARRELL KLIEN AA7BD
LEE BALL AL7W
GRACE GALLUS K7KWM
JOHN LIBENROOD K7RO
WES ALLEN K7WWG
CARL HOKKANEN KA7CRN
JACK SMITHSON KA7HOJ
GENE BUELL KA7KBH
TOM BAILEY KA7NAM
VAL ROEHL KA7QEV
ED FRANSEN KA7TCX
BARB BAILEY KA7WTF
TONY ANTONS KA7ZDE
KATHY EWING KB7DNK
ROBERT ANDERSON KB7GUJ
BUD BUTTERFIELD KC7PS
MARTY MCKILLIP KD7LA
RAY SKILES KM7P
BOB DORMAN KV7F
RANDY STIMSON KZ7T
JOHN BURGESS N7DCQ
SUSAN BENSON N7EPE
DEBORAH SMITH N7KAE
EVERETT MARRIOTT N7LWQ
BRAD BEACH N7NVC
JUDITH SCHRADER NA7H
ROLLAND NIELSEN NE7S
ERNIE AUSTIN W7AXJ
DOC MCLENDON W7GWC
NEIL MCKIE WA6KLA
PAUL SCHAFF WB7BBG
TONY KIRK WB7RAL
LYNN HURD WB7UNU
KEN GILBERT WR7D
BOBBI ANTONS

ALAN CHURCHILL AA7CV
BOB BURGERT K0PB
ROLAND WEST K7MCK
JOHN EWING K7SHC
RICK SCHOUWEILER KA5OLH
MARTHA HOKKANEN KA7CRO
JOHN KLEIN KA7ICV
JO ORR KA7MIE
DEE LYNCH KA7NPN
LORNA CAMPBELL KA7RFD
MARVEL MOYES KA7TZT
LARRY CRONENWETT KA7WXN
PHIL WEAVER KB7DLZ
PEGGY TILL KB7FZL
RICK DOSIER KB7JFU
WALLY BOLEEN KC7TB
HANFORD VAN NESS KE7BB
JIM POLLARD KN7Z
RICK READ KW7B
WARREN KNIGHT N7BIJ
DON BRANDA N7DDK
TESS SUTTON N7FXM
DOUGLAS BROWN N7KEJ
JOAN SCHOUWEILER N7MNL
JAMES HILL N7NXJ
STEVE BRICE NA7T
RAY KATO NO7X
BILL ROGERS W7DYS
ED CLULOW W7TWL
ARMAND PILOTTE WA7IIM
JANET BELL WB7FJC
AL BERG WB7SIC
BOB ORR WF7Q
STAN HOLM WS7O
BILL VESSER

JIM GRAFFY AE7W
RON MAYER K7BT
DARWIN DURR K7PSD
RAY DEETH K7VDQ
JEFF DURR KA7AKU
CARROLL HERMANSON KA7FJX
LEONARD THOMPSON KA7IOB
STEVE COAN KA7MOW
MIKE DURR KA7PWZ
ROGER NOYES KA7RNN
PAT GRIFFITHS KA7UFG
REX DANTON KA7YKR
BOBBIE MOHR KB7DME
BRONSON KIRK KB7GUH
ALBERT MILLER KB7RW
YOSHI ABE KD7AM
IRA RUBIN KF7QS
ALAN ROEHL KO7B
GARY COX KX7W
MARK CATTELL N7CRQ
DAVE FUNK N7DWL
KATIE LAPAY N7GCL
SAM SENIOR N7KJN
RULF SCHUMANN N7NEJ
JACK MARSH NA7H
JOHN KOENIG NB7W
GREG MILNES W7AGQ
DALE LEBARRON W7FBP
TOM HILL WA3RMX
DONALD KINNEY WA7JRT
BUZZ MALBICA WB7MT
DENNY DOOLITTLE WB7WFJ
MARY LOU ZEHENDNER WQ7V
BUCK SUMMERS W7S
SALLEY BUTTERFIELD

Words from the President

By Ray Deeth, K7VDQ

I would like to start some thinking on the part of the members with the following observations after reading and article on "DISTINGUISHING SUBSTANCE AND STYLE". Much discussion has developed among the executive board relating to Substance and Style as far as involvement of OTVARC members.

The following statement is a quote from the article concerning this subject and I have adapted the intent in hopes of developing some open forum discussion for enhancement of the club. Think about it!!

"Failure to distinguish 'style' from 'substance' can cause problems. When everything is regarded as part of the unchangeable 'substance', we easily find ourselves in needless contention over practices and customs that are not an integral part of the clubs Objectives and Goals. Conversely, when everything is regarded merely as a matter of style that we can change at will, the result can be damaging to our overall promotion of Amateur Radio in the community".

Further, I would like to reiterate the club's statement of "Objectives and Goals" which list five "substances" in promoting amateur radio. If everyone were to study these five points in depth, I believe our "styles" would create more fraternal growth among the membership. Therefore, I'm asking the newsletter editor to print OTVARC's statement of Objectives and Goals again for everyone to review and study.

In my opinion, it is very easy to become complacent in all volunteer organization. I hope these thought provoking comments will nurture one another into more creative ideas and creative thinking to carry out these objectives and goals.

OREGON TUALATIN VALLEY AMATEUR RADIO CLUB STATEMENT OF OBJECTIVES AND GOALS

1) PUBLIC SERVICE

Provide communication during public events and community activities. Inform and demonstrate to the public the value of amateur communication capabilities.

2) EMERGENCY COMMUNICATIONS

Be prepared to provide communications during emergencies and / or local disasters.

3) EDUCATION

Provide training for licensed amateurs as well as for those who wish to earn a license.

4) HOBBY

Provide an environment to enhance the hobby aspects of amateur radio.

5) SOCIAL

Provide social events where amateurs and their families can meet each other and exchange ideas.

The OVARC NEWSLETTER is published monthly by the Oregon Tualatin Valley Amateur Radio Club, Inc. The opinions, views and recommendations of its contributors are not necessarily those of the Club, it's officers, advertisers or the Editorial Staff. Articles or letters may be submitted to: Jeffrey A. Durr, KA7AKU, Editor, 16376 S.W. Estuary Drive, #104, Beaverton, Oregon, 97006. Deadline for all material is the 20th of the preceding month.

Meetings are held on the second Wednesday of each month at the Beaverton Elks Lodge, 3500 S.W. 104th Avenue, Beaverton, Oregon. Meetings begin at 7:00 P.M. following a buffet dinner served at 6:15 P.M.

All correspondence other than for this newsletter should be sent to: Oregon Tualatin Valley Amateur Radio Club, Post Office Box 5132, Aloha, Oregon 97006-0132.

Travellers On The Move

By Willis, N7DZR

The July outing was a great success. A big "THANK YOU" to John, N7DCQ, the wagon master, for selecting such a nice place on the Row River called Schwartz Park and to Geno, KA7KBH, for arriving early and turning on the OTVARC charm and getting our spaces on the end of a site loop. It was like having a group area, only better. Our area had a nice, gentle breeze flowing over the Row River toward us.

Schwartz Park is a U.S. Army Corps of Engineers park and since the last time we were there, a lot of improvements have been made. There are more than 55 gravel, level, RV sites and many group sites. Two families of camp hosts supervise the park and do it in a very nice and friendly way. There is a fee now, \$5.00 for single units and group prices vary with attendance. Group sites are the least by far.

Dorena Dam, the Corps' full fledged hydro-electric project, is just up the Row River from Schwartz Park. John, being a good wagon master, arranged for a tour of the dam's facilities, including the turbine area. About the dam is a very large reservoir, creating a multi-use recreation area. Camping near us was a bass fishing club with a national bass catching contest going. The reservoir is broadly known for its bass fishing. It also is a great place for trout fishing; just ask me!

The Row River was, at this time, closed to the catching and keeping of salmon and steelhead. Never the less, our potluck did have salmon. As always, the gals and guys went all out with some of their favorite dishes. We have to say gals and guys because one of the guys made a very unusual and delicious macaroni salad. There was a very special rice dish from an original recipe from a fine restaurant in the San Francisco area. Corn on the cob was cooked at the serving table and was very delightful. Many other gourmet dishes, including munchies, salads, and deserts too many to mention were served. All the cooks deserve a big "THANK YOU"; "Well done cooks!" (They really are chefs!)

An informal round the table discussion of coming events indicated good times ahead. Being considered is a weekend trip (overnight) on Amtrak with the possibility of including the rest of OTVARC. We have to get approval from OTVARC; How about it Ray? We could fill a car with just us. Haming could include a special event, mobile railroad style. Think about it and give your comments to Dave N7DWL's XYL Marian at 620-5215. Marian is a great organizer so this would be a well planned event. Suggestions for the trip include Seattle, Pendleton, La Grande, and New York City. New York City will be considered if we

can do it in a weekend! Marian will talk to the Confair people.

There was not too much time for games this weekend; everybody was just too busy. Maybe a little U-NO, but with tours, carnivals, fishing, bicycling, swimming, hiking and relaxing, it was good times for all. The relaxing took place under some of Oregon's largest old growth trees. There must have been a lot of spotted owls in the park or some logger would have cut them down!

Watch for more good times coming next month with the OTVARC travellers. Darwin, K7PSD, will be the wagon master. The good times are planned for us at Metzler Park; as always the third weekend of the month. Metzler Park is a Clackamas County Park located south of Carver, off Spring Water Road, just five miles past McIver Park. The short driving distance and the low rates should bring out the OTVARC's so beware. Please call Darwin at 646-5910 for information. His XYL, Verna Mae, can give out information also; she has been deputized, authorized, and okayed by Darwin. Clackamas Park's phone is 655-8521.

The October travellers campout will be at the Thousand Trails Preserve, near Pacific City, Oregon. Reservations are required no later than September 16, 1990. Please contact either Tom Bailey, KA7NAM, or Barb Bailey, KA7WTF, at 538-2266. Directions to the preserve will be given upon request.

So come one and all and join the OTVARC Travellers at the next campout. Good times available for all! Our wagon masters (different each month) are the BEST in the WEST! They work and plan very hard to make good times happen. Don't let them down! See you August 17 and 18, 1990 at Metzler Park. Maybe John will bring his R5 again. WOW! He has a very unique picnic table mount too.

You all come now, hear!!
AR

Upcomming OTVARC Meetings

Beaverton Elks Club, Beaverton, Oregon

Buffet Dinner at 6:15 P.M.

Meeting begins at 7:00 P.M.

August 8

Richard Bunch

BPA Engineer

AC-DC Trunk Transmission Line

September 12

Ed Mullink

Fast Scan Television

Secretary's Report August 1990

By Steve Coan, KA7MOW

Here the year is, more than 1/2 over and things just seem to be heating up. We have the Human Powered Vehicle convention and contests the first of August. Hood to Coast run near the end of August and project night is getting ready to take off again after a summer vacation.

The Election committee is going to have to get started again to attempt to gather some candidates for the November elections. The club currently has 202 active members.

Your's truly was NOT able to make the July 5th board meeting at Al Berg's house. I have not yet received the minutes of that meeting, so I will include them in next month's newsletter. Nothing much else to report for now. On with the general meeting minutes for the July 11 general meeting:

OTVARC GENERAL MEETING MINUTES July 11, 1990

- I. Meeting brought to order 7:05PM (19:05)
- II. Introduction of guests
 - A. Human Powered Vehicle competition
 - B. State Games of Oregon
 - C. Janet Bell brought some family guests
 - D. John Ewing brought his son & friends
- III. OTVARC received a "Thank You" from the State Games of Oregon
 - A. Plaque presented to the club
 - B. News article in the Sunday Oregonian
 - C. State Games will be July 12-14 next year
- IV. Field Day Report
 - A. Dee Lynch brought us up to date on the progress on the club trailer during field day
 - B. Summary on contacts by stations and modes of operation
- V. International Rotarians donated \$200 to the trailer fund for the use of the Club trailer during their convention
- VI. Janet Bell
 - A. There are some BF call signs being heard on the 147.32 machine
 1. Report the call sign and time to Janet
 2. There is a possible repeater problem they are attempting to track down
- VII. Randy Simpson
 - A. Hood to Coast - August 24th - 25th
- VIII. Jerry Jacobson - HPV
 - A. Contests run Aug 1-3

IX. Path Griffiths

A. Willamette DX Convention comming up soon

X. Dinner ticket drawing - free meal won by Jack - KA7HOJ

XI. SeaPac

A. Thank you picnic at Beaverton Park on July 29th

XII. Travelers

A. Campout at Dorena Dam at the Civil Engineer campground by Cottage Grove.

XIII. Meeting adjourned before program at 7:44PM

XIV. Program was QRP contesting on Field Day by Ray Lewellan

Public Service

By Randy, KZ7T

I had one of the most interesting public service events that I have ever worked. The reason was the communication problem. The event was called to Hel'en Back. It is a combination tour and race around Mt. St. Helens.

On Friday and Sunday the cyclists do the tour and rest on Saturday. The competitive riders, better known as the animals, come up on Saturday and ride the whole thing, 210 miles, in one day.

We usually use the 147.060 repeater, but it was down. I went up to the Cispus Center the week before to figure out what we could do with other repeaters. I had bought a new antenna called a Diamond antenna. It is supposed to have a 7.5 db gain.

Well I put it up 25 feet high and could just break the 147.100 machine. I decided that an 11 element beam would do the job, which I didn't have with me. I thought that I would take my IsoPole with me just in case.

The big day arrived and when I got there we put up the 11 element beam. The beam didn't do anything much to our surprise. So I put up the IsoPole and I could bring up 147.320 and 147.100 with out much difficulty. The Cispus Center is on the north east side of Mt. St. Helens surrounded by mountains and why the IsoPole worked is beyond me but it did and well enough to get us by.

Thanks to Jim, KB7ADH, Dale, W7FBP, and Gene WA7FYU for many hours of hard work. The tour started in Woodland Washington at 8 A.M. Friday, so we were there at 6 A.M. getting the gear in the SAG wagons.

Saturday started at 4 A.M. and went until 8 P.M. that night. Sunday was a piece of cake from 6 A.M. to 5 P.M. An interesting thing about Saturday is the drivers were relieved half way through the race but the hams worked the whole day.

They raised about \$38,000 during the event, so it is worth while. This event is for the American Cancer Society.

Nicad Cell Characteristics

By Hugh, W6WTU

The operating characteristics of a Nicad cell are very basic in nature. During charge, only current and cell temperature are critical. Discharge may occur at any current rate until the cell terminal voltage falls below 1.1 volts, but the cell temperature rise must not cause the cell electrolyte to boil (gas). When connected in a pack, the pack must be unloaded when the individual cell voltage falls to 1.1 volts to prevent reverse charging of the lowest voltage cell in the pack. Few applications discharge cells at an excessive high rate where gassing becomes a problem, with the exception of toy electric cars (These are toys for men). Cells designed for this application usually have larger than average plate area and large connecting tabs to support the higher peak current. Cell temperature is kept below the critical value by selecting the cell capacity such that the cell will dissipate its charge before gassing occurs. In essence, the toy car runs continuously with a nearly zero series load resistance allowing the cell temperature to rise near critical just as cell discharge is reached. The following brief notes will further amplify an understanding of Nicad cell characteristics.

1. Nicads are very easily damaged due to gas pressure caused by over-charging at high charge rates. Unfortunately, Nicads do not have a positive indicator for indicating the state of charge. It is up to the user to estimate the relative charge state. Typically, the charge rate is calculated at $C/10$ where C equals cell capacity and the 10 represents hours for charging. At $C/10$, a nominal or normal charge would occur. A fast charge can be accomplished, cell design permitting, by changing the ratio, i.e., $5C/2$.
2. Cell temperature does rise at the completion of the charge cycle, particularly at high charge current values, and can be used as a charge completion indicator. At the moment of temperature rise, the charge current must be reduced immediately to prevent excessive gas pressure build-up. Some chargers monitor the cell temperature and reduce the charge current to a small sustaining value. For 500ma cells, the sustaining value is typically between 10-25ma, or just enough current to compensate for the chemical change (internal current leakage).
3. Pulse charging of Nicads is most preferred as it is more efficient than a steady-state current value. Steady state current creates gas bubble formation on the plates of the cell, while pulse current tends to create fewer gas bubbles allowing the charge to be more uniform across the plate area. The charge uniformity is enabled by gas bubbles being moved around due to current pulsations. Bubble movement allows more plate area to be exposed during charge. Pulse charging also creates less of a temperature rise. The charge rate still has to be calculated as a function of $C/10$ during each charge pulse to determine total charge time (The accumulated charge is equal to the sum of the charge area under the pulse curve).
4. Older Nicad cells would not accept high charge rates above $C/10$ and would develop electrolyte seal leakage at attempted higher charge rates. A leaky seal, in any case, means the eventual loss of the cell. Newer cells, as used in most handheld radio applications seem to tolerate high charge rates without developing cell leakage as long as the temperature is controlled (kept low).
5. In the event corrosion around the seal of a cell develops, the corrosion can be removed. Wipe the corroded area with a vinegar soaked cotton swab. Use an ample amount of liquid and dry the cell with a tissue. Keeping the cell clean allows it to be used until it fails completely. Take note that weeping cells can cause corrosion problems if they are not inspected and cleaned regularly.
6. Discharge of a Nicad is critical only if the cell is under a load. When loaded, the cell voltage should not be allowed to drop below 1.1 volts which is just over the edge of the discharge end of the curve. Allowing the cell to drop to 1.0 volt or less while under load may cause permanent plate/electrolyte damage. The result would be a loss of cell capacity. Of course, a loss also takes place naturally with age which limits the number of charge-discharge cycles the cell is capable of supporting before it is exhausted.
7. Unloaded cells may be stored almost indefinitely and allowed to discharge to whatever cell terminal voltage the cell can maintain on its own. When putting a previously stored cell into use, charge the cell, at least the first cycle, at $C/10$ for 12-14 hours. Shelf life of a cell is usually a function of how fast nickel whiskers develop internally that can short the cell. Two methods have been proposed as a way of extending cell life when whisker formation is of concern. a) Cycle the use of the cell/pack periodically. It is believed that the rate of whisker formation is reduced when cells are

(Continued on page 6)

(Nicads - continued from page 5)

charged and discharged periodically. b) Allow the cell to sit on the shelf as long as needed and if a whisker short should occur, blast it away with a high current pulse from a capacitor or other source. It has been observed that once whisker growth/shorting begins, it can not be permanently stopped.

8. It has been observed that the terminal voltage across a charged Nicad cell will increase as the cell ages. Using this observation, the life expectancy of a cell can be evaluated and monitored. As an example, a new/fresh cell will exhibit a terminal voltage of 1.25 volts while an old cell will exhibit, say, 1.5 volts. It is believed that the cell dehydrates with age and the rising voltage is a function of the increase in cell impedance.

9. Over the years, there has been many a discussion about Nicad cell memory. Yes, Nicads do have a memory function which can be aggravating if not understood. Simply stated, if the cell is used only over a small portion of its total capacity for at least 60% of the cycle time, the cell capacity will assume the more limited capacity value. To avoid the tendency of a memory condition inhibiting use, allow the cell/pack to be fully charged and discharged at least 60% of the total charge-discharge cycles. If in doubt about what is a full charge or what the discharge condition happens to be, then allow the cell/pack to fully discharge, unloaded when below 1.1 volts/cell, about one out of ten cycles. The charge rate from full discharge should be C/10 for 12-14 hours to cause as much chemical conversion to occur as possible. Charging at twice that value is not a problem as long as the cell doesn't start out-gassing (Monitor the temperature and taper off the end charge rate). Many hints and kinks have been published regarding the nature and care of Nicads and all point to the fact that Nicads require user TLC to obtain long cell life. The bottom line is that the user must pay attention to how the cell is being treated.

One-Land Woodpecker

By Tom, AA6MZ

Those of us who chase DX as a passion have all shared this experience. We've got our beam pointed just so, and our finals are peaked and tweaked to output as much RF as is legal. We've listened and we've figured out the DX station's operating pattern. We're just about to key our transmitter, victory and conquest certain, when we see our S-Meter start to jump. We reach for the noise blanker, but the pulsing is just too much for our rig.

The Russian woodpecker has just snatched away our victory.

The Russian woodpecker is a over-the-horizon (OTH)

radar system that operates in the HF bands. It has been recently joined by an American version, also operating in the HF bands.

With transmitting antennae located in Moscow, Maine (it's too ironic not to be true) and receiving antennae located over 100 miles away in Columbia Falls, Maine, this OTH system will guard our east coast. The area of coverage extends from Greenland to Cuba.

The operations center is located in Bangor, ME. From here, display signals indicate aircraft targets, automatically correlating them with all known flight plans. Aircraft not correlating are reported to NORAD (North American Air Defense Command).

Each of the three transmit antenna arrays is 3630 feet long and 35 to 135 feet high. Each transmit array is divided into six sub-arrays to handle frequencies from 5 to 28 MHz. Frequency switching is controlled by 28 individual VAX computers which input atmospheric conditions and determine the optimum operating frequency.

The range of this radar system is between 500 to 1800 miles, as compared to 200-300 miles for conventional systems. The coverage area is divided into three 60 degree segments. Each segment is served by 12 100 kW transmitters (talk about a pile-up buster). The receiving antenna array is 4980 feet long and consists of 246 monopole elements.

Lest you take comfort in the thought that this system is far away. The Maine system is only the first of 4 similar systems to be built. A west coast system is about 90 percent complete and has already been operationally tested. Transmitters are located near Christmas Valley in Southern Oregon and the receiving antennas are located near Tulalake, California. This system will provide coverage from Alaska to Baja, CA.

The third system, with transmitters looking north from Alaska, is expected to be begun later this year. Finally, a system, covering the central U.S., looking south to cover the Caribbean area, is expected to be awarded in early 1991. This last system is expected to be paid for by funds allocated to the military for the war on drugs and will be used to spot smugglers, as well as possible enemy aircraft.

Japan and Australia have also shown interest in installing OTH systems in their countries. This brings up the possibility of a new award. HAW, Heard all Woodpeckers. If it's been a while since you've heard the Russian Woodpecker, don't fret. His cousins are just around the corner.

73 de Tom,
AA6MZ

Tillamook **L**incoln **C**ounty A.R.C. **1990**

Amateur Radio Swap and Talk Meet

☺ A Hamaramma ! ☺

**You deserve some T . L . C . on the
Beautiful Oregon Coast !**

**September 29 , 9:00 am to 3:00pm
Tillamook County Fair Grounds.**

Admission 3.00 at door

**Food and Refreshments ! Hourly Prizes !
Free Parking !**

**Tables \$5.00 including electricity only 75
available and must be reserved.
Setup 7:30 to 9:00 am.**

**R.V. overnight with electricity \$5.00 , \$3.00 without.
Talk in Frequencies 147.220 (Hebo)
local instructions 147.360**

For current info or questions call N7DVF, N7ILJ, KA7EAT, N7KHX, N7ILB ON 147.220



R.V. & Table Reservation Mail Slip Only Please !

Mail to:
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1650 HWY 101 North
Tillamook, Or 97141

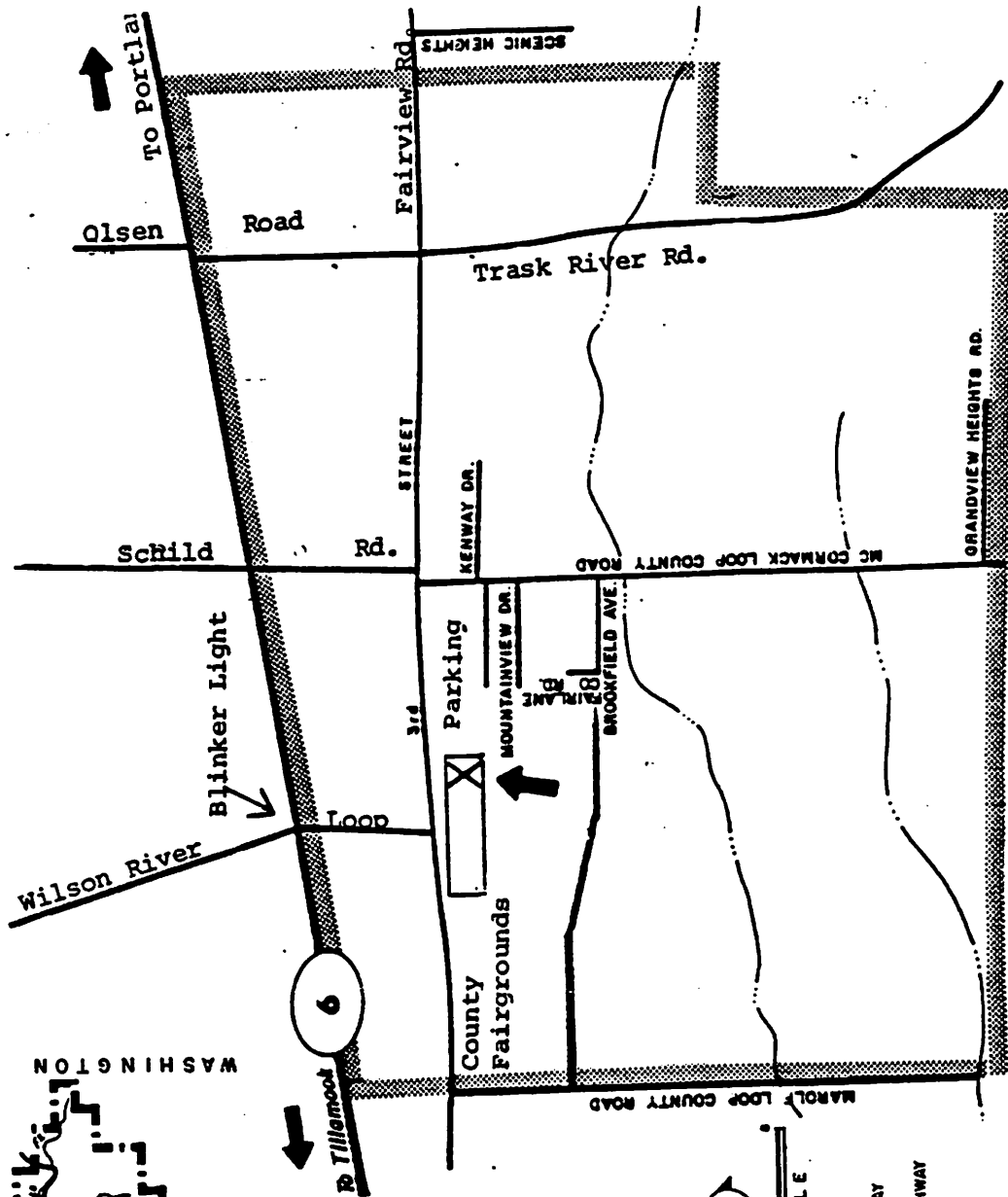
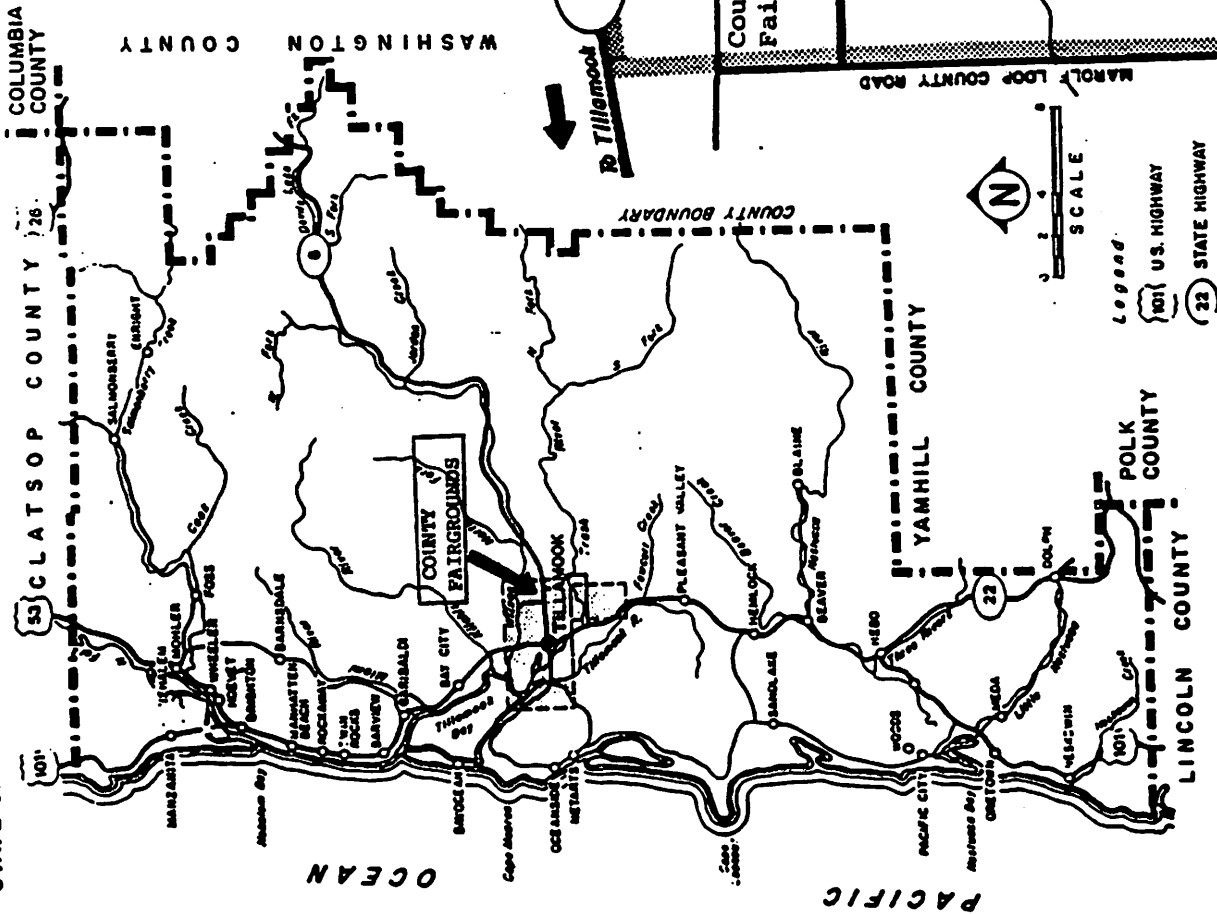
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Sam Dorning KA7EAT
304 NE Dorning st.
Waldport, Or 97394
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TILLAMOOK COUNTY

STATE OF OREGON



Upcoming Events 1990

| | |
|-------------------|--|
| August 8 | OTVARC General Meeting Beaverton Elks Club, 7 P.M. |
| August 11 | High Cascade Ham Fair Mt. Bachelor, Bend, Oregon |
| August 17, 18 | OTVARC Travelers Campout Metzler Park |
| August 24, 25 | Hood to Coast Relay |
| August 29 | Project Night |
| August 30 | SEAPAC 1991 Planning Session Cedar Hills Baptist Church, 7 P.M. |
| September 1, 2, 3 | Artquake Public Service |
| September 12 | OTVARC General Meeting Beaverton Elks Club, 7 P.M. |
| September 14, 15 | OTVARC Travelers Campout Fort Stevens State Park |
| September 26 | Project Night |
| September 29 | Tillamook Lincoln County Swap Meet Tillamook County Fairgrounds, 9 A.M. |
| October 10 | OTVARC General Meeting Beaverton Elks Club, 7 P.M. |
| October 19, 20 | OTVARC Travelers Campout Thousand Trails Preserve Pacific City, Oregon |
| October 31 | Project Night |
| November 14 | OTVARC General Meeting Beaverton Elks Club, 7 P.M. |

Help Needed At ARTQUAKE 1990

On September 1, 2, and 3, the annual art festival called Artquake will be held in downtown Portland. Each year local Hams help patrol for lost children and watch for medical emergencies.

This years event will be held on Broadway near Pioneer Courthouse Square. On Saturday and Sunday the hours are 11 A.M. to 10 P.M. Monday the show opens at 11 A.M. and closes at 6 P.M.

Communications will be on 2 meter simplex. Net control will be using the Tektronix club call K7AUO.

If you can spare some time to help with this public service event, please contact Wes Allen, K7WWG, at 649-3295 in the evening.

OREGON TUALATIN VALLEY AMATEUR RADIO CLUB

Executive Board

Feel free to contact the Board of OTVARC to answer any questions you may have on anything.

| | | | |
|------------|-------------------|--------|----------|
| President: | Ray Deeth | K7VDQ | 324-4502 |
| Vice Pres: | Rick Schouweilder | KA5OLH | 640-4281 |
| Secretary: | Steve Coan | KA7MOW | 646-5271 |
| Treasurer: | Ken Gilbert | WR7D | 292-3497 |
| Trustee: | Al Berg | WB7SIC | 640-5456 |
| Trustee: | Lynn Hurd | WB7UNU | 649-9152 |
| Trustee: | Marty McKillip | KD7LA | 644-9244 |
| Trustee: | John Koenig | NB7W | 641-3575 |
| Trustee: | Greg Milnes | W7AGQ | 648-6990 |

Other Club Contacts

Club Emergency Services Coordinator:
Vacant

Club Trailer / Club Equipment / Technical:

| | | |
|-------------|--------|----------|
| Dee Lynch | KA7NPN | 646-4580 |
| Terry Biggs | WB7CHK | 648-3687 |

Contests:

| | | |
|-------------|------|----------|
| John Koenig | NB7W | 641-3575 |
|-------------|------|----------|

Health and Welfare:

| | | |
|---------|--------|----------|
| Al Berg | WB7SIC | 640-5456 |
|---------|--------|----------|

Public Service:

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| Randy Stimson | KZ7T | 297-1175 |
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Newsletter:

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| Jeff Durr | KA7AKU | 645-3205 |
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Project Night:

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| Terry Biggs | WB7CHK | 648-3687 |
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VEC Testing Schedule

Date: October 14

Time: 1:30 P.M.

Contact: Edith Litvin (KA7MIF) for preregistration information at 640-5803.

Location: Portland Adventist Medical Center in southeast Portland, adjacent to Mall 205. Examinations given in the cafeteria conference / health education area.

Oregon Tualatin Valley Amateur Radio Club
Post Office Box 5132
Aloha, Oregon 97006-0132

Address Correction Requested

